



**Western  
Technologies  
Inc.**  
The Quality People  
Since 1955

3737 East Broadway Road  
Phoenix, Arizona 85040-2921  
(602) 437-3737 • fax 470-1341

February 17, 2011

AIG Retirement Services, Inc.  
C/O DST Real Estate Advisors  
6730 North Scottsdale Road, Suite 250  
Scottsdale, Arizona 85253

Attn: Mr. Doug Tymins

Re: Earthen Cap Construction Report  
Washington Park Corporate Center, Lot 3  
4400 Block of East Washington Street  
Phoenix, Arizona

WT Job No. 2187JK184

The purpose of this letter is to summarize the construction of an earthen cap (the cap) that meets the requirements of 40 CFR 761.61(a)(7) and 40 CFR 264.310(a) to cover PCB impacted soils at the above referenced site.

Construction of the cap was conducted in accordance with the schedule submitted to EPA in our letter dated June 14, 2010 and approved by EPA on July 2, 2010. The cap was constructed to cover PCB impacted soils that remained within the Trench Area at 2.9 (B-11), 1.6 (B-11), 1.2 (T6-15), 4.1 (T7-15), and 6.8 milligrams per kilogram (mg/kg) (T8-15); and immediately west of the Trench Area, where PCBs remain at 1.4 (B-14) and 1.3 mg/kg (B-15). PCB's in these locations had been encountered at a depth of 19 feet for grids T6-15, T7-15, and T8-15; and depths of 25 and feet and 31 to 31.5 feet at B-11, 26 to 26.5 feet at B-14, and 36 to 36.5 at B-15.

Prior to construction of the cap, several potential sources of soils throughout the Phoenix metropolitan area were sampled and tested to verify conformance with the 40 CFR 761.75(b)(1)(ii) through (b)(1)(v) criteria (Permeability, Percent soil passing the No. 200 sieve, Liquid Limit, and Plasticity Index). After several unsuccessful attempts to find a local source of soil to meet the permeability criteria, it was decided to blend the on-site soils with Sodium Bentonite clay from Western Clay in Aurora, Utah. Index properties and permeability tests were conducted in our laboratories to determine the optimum amount of Bentonite clay in the mix to achieve the required criteria. The CFR criteria were met with a combination of 75% on-site Clayey Sand soils and 25% Bentonite clay on a per weight basis (or approximately 60% on-site soils and 40% Bentonite on a per volume basis). The results of our laboratory tests are attached in Appendix A and summarized in the table below:

Soil Property	40 CFR 761.75 Criteria	Bentonite-Soil Mix
Permeability (cm/sec)	$\leq 1 \times 10^{-7}$	$7.4 \times 10^{-8}$
Percent Soil passing No. 200 sieve	> 30	35
Liquid Limit	> 30	170
Plasticity Index	> 15	18

After the appropriate mix of materials for the cap construction was determined, a survey crew from Strand Associates (Strand) located the corners of the original trench excavation and the future limits of the cap. Subsequently, Western Technologies Inc. (WT) and its subcontractor Environmental Response, Inc. (ERI), proceeded to remove the entire backfill soils that had been placed in the trench area when PCB site characterization activities were originally conducted (WT Job No. 2188JF154, dated March 25, 2009). Removal of backfill soils was completed when the HDPE plastic liner that separated the on-site native soils from the import fill soils at the bottom of the excavation was encountered. Care was taken not to damage the liner or extend the excavation beyond this boundary and this liner was left in place. The trench excavation was then backfilled with on-site soils (without Bentonite) from a depth of approximately 19 feet to approximately 5 feet below the existing grade. The soils in this depth range were compacted in lifts no thicker than 10 inches to 98 to 100 percent of the maximum dry density per ASTM D698. Observation and testing records are attached in Appendix A of this report. After the trench area was backfilled to 5 feet below grade, the area immediately west of the trench (B-14 and B-15 locations) was excavated to level it with the rest of the Trench.

The soil used to fill the remainder of the Trench area and that remained stockpiled on-site was moistened and blended in-situ with the Bentonite by ERI to construct the cap. A WT representative observed the on-site blending to verify the adequate proportions of the two materials in the mix. The blended Bentonite-soil (cap) was subsequently placed in lifts no greater than 10 inches from a depth of 5 feet to approximately half a foot below current grade. The Bentonite-soil mix was compacted to 95 percent of the maximum dry density and to moisture contents at or greater than optimum per ASTM D698 (Appendix A). An HDPE liner was placed on top of the cap as a protective membrane to mitigate desiccation. Finally, a 6-inch layer of on-site compacted soil was placed on top of the cap and liner, and leveled to match the surrounding site grade. Strand placed rebar stakes at each corner of the cap and recorded the cap top elevation, which was located at the boundary between the liner and soil cover. The legal description and exhibit of the cap configuration is attached in Appendix B of this document.



Washington Park Corporate Center, Lot 3  
Cap Construction Report  
2187JK184

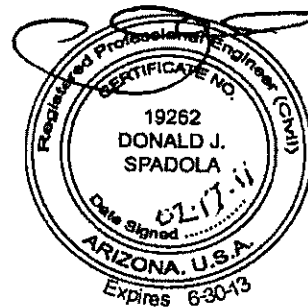
## CLOSURE

The comments, statements, and interpretations set forth in this report reflect the opinions of the authors based upon conditions at the locations of specific observations. Work on this project was performed in accordance with generally accepted industry standards and practices by professionals providing similar services in this locality. No other warranty, express or implied, is made.

Sincerely,  
WESTERN TECHNOLOGIES INC.  
Geotechnical Engineering Services



Humberto F. Preciado, Ph.D., P.E.  
Director of Geotechnical Services



Donald J. Spadola, P.E.  
Principal/Senior Geotechnical Engineer

## Attachments

Copies to: Addressee (2)  
Carmen Santos with EPA Region 9



# APPENDIX A

When Recorded return to:

SAFG Retirement Services, Inc.  
c/o AIG Global Investment Group  
2800 North Central Ave.  
Suite 2100  
Phoenix, AZ 85004

## DEED NOTICE

Facility Name:

Lot 3 of Washington Park Corporate Center  
4400 Block of East Washington Street  
Phoenix, Arizona ("The Property")

This Deed Notice, when recorded, is a covenant that runs with the land and burdens the Property, binds all owners' heirs, and successors.

This Deed Notice is executed and recorded by:

SAFG Retirement Services, Inc.  
c/o AIG Global Investment Group  
1 SunAmerica Center  
38<sup>th</sup> Floor  
Los Angeles, CA 90067

Owner covenants and agrees as follows:

A. Presence of Contamination.

Environmental contaminants are present on a portion of the Southeast Half of Lot 3 of Washington Park Corporate Center, Phoenix, Arizona.

B. Warranty of Title.

Owner is the only owner of, and holds all equitable and legal title to, the Property and has the authority to execute and record this Deed Notice.

C. Legal Description.

Lot 3 of Washington Park Corporate Center, Phoenix, Arizona. This Deed Notice applies only to a portion of the Property herein referred as the Excavation Sensitive Area. A legal description of the portion of the Property subject to the Deed Notice is attached and marked as Exhibit 1.

D. Maps.

The location of the Property and the portion of the Property subject to this Deed Notice is attached and marked as Exhibit 1.

E. Environmental Contaminant Information.

Poly Chlorinated Biphenyls (PCBs) impacted soils remain in an area of the site referred to as the Excavation Sensitive Area (Exhibit 1). The PCB concentrations range from 1.2 to 6.8 milligrams per kilogram (mg/kg) and the soils containing these concentrations are at depths ranging from 19 to 36.5 feet below current site grade (approximate site grade elevation is 1148 feet above mean sea level).

F. Engineering Control

Because the Owner is using an engineering control to prohibit contact with and migration of the remaining PCBs, the owner agrees to the following:

1. The engineering control in the Excavation Sensitive Area consists of a compacted clay soil cap beginning at an approximate Elevation 1142.8' and extending upward 4.5 feet (Elevation 1147.3'). This cap is covered with 6-mil thick plastic sheeting followed by a 0.5 foot-thick soil cover material. Soil used to construct the CAP has a permeability equal to or less than  $1 \times 10^{-7}$  cm/sec, has more than 30% passing the No. 200 sieve, a liquid limit greater than 30, and a plasticity index greater than 15. The purpose of this CAP is to limit exposure to PCB impacted soils.

2. The maintenance requirements for the engineering control are presented herein:

2.1 General

The Excavation Sensitive Area has an engineered CAP at elevation 1147.3 feet above mean sea level. The CAP was constructed with clean soil or other materials that meet the requirements of 40 CFR 761.61(b)(1)(ii) through (b)(1)(v).

Any Owner of the Excavation Sensitive Area or any part thereof that will be conducting any development on or over the Excavation Sensitive Area, must notify all contractors of the existence of the CAP.

2.2 Maintenance of the CAP

The Property including the Excavation Sensitive Area is currently vacant, graded, undeveloped land with no structures or development and no occupants. While it remains undeveloped land, the Owner shall maintain the CAP in its current condition. From time to time, but at least annually, the Owner shall conduct an inspection of the CAP to observe if it has been altered in any way that would cause the CAP to not perform as intended. If the inspection reveals any indications that the CAP has been compromised, altered, or affected in any way that would affect its performance, the Owner must repair the CAP to its original condition. The repair to the CAP should be completed using clean soil or other materials that meet the requirements of 40 CFR 761.61(b)(1)(ii) through (b)(1)(v) and compacted to a minimum of 95 percent of the standard proctor density ASTM D698. Annually, the Owner will inspect the CAP and

[REDACTED]

if a repair or alteration to the CAP is needed, the owner shall submit a report describing the repairs or alterations to EPA.

### 2.3 Development on the CAP [REDACTED]

In potential landscaped areas, a minimum 12-inch thickness of the CAP must be maintained at all times. All utility line cuts through the CAP must be backfilled and compacted with clean soil or other materials that meet the requirements of 40 CFR 761.61(b)(1)(ii) through (b)(1)(v) and compacted to a minimum of 95 percent of the standard proctor density. [REDACTED]

Any asphalt or concrete placed on the CAP will become a part of the CAP with respect to future maintenance and inspection of the CAP. Portland cement or asphaltic concrete shall have a minimum thickness of 6 inches. If any foundations penetrate the CAP the footing thickness shall have a minimum thickness of 6 inches and the footing will become a part of the CAP with respect to future maintenance of the CAP. Once/if pavement or foundations cover the surface of the Excavation Sensitive Area, the earthen cap is no longer designated the CAP and the pavement and/or foundations will become the CAP. The footing excavation must be backfilled with clean soil or other materials that meet the requirements of 40 CFR 761.61(b)(1)(ii) through (b)(1)(v) and compacted to a minimum of 95 percent of the standard proctor density. [REDACTED]

3. Owner agrees to maintain the specified maintenance requirements and implement the procedures outlined in Section 2 of this document.
4. If any person desires to cancel or modify the engineering control in the future, the person shall obtain the EPA's written approval. Any modification of the engineering control without the EPA's written permission is a violation of this deed notice.

### G. Additional Information

More detained information on the remediation is maintained and available at the EPA at the following address:

United States Environmental Protection Agency  
Region 9  
RCRA Corrective Action Office  
Waste Management Division  
Mail Code WST-5  
75 Hawthorne Street  
San Francisco, California 94105

SAFG Retirement Services, Inc.,  
fka AIG Retirement Services, Inc.

By: \_\_\_\_\_  
Douglas S.. Tymins  
Authorized Agent

State of California  
County of \_\_\_\_\_

On \_\_\_\_\_ before me, \_\_\_\_\_,  
(here insert name and title of the officer)  
personally appeared \_\_\_\_\_  
\_\_\_\_\_

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

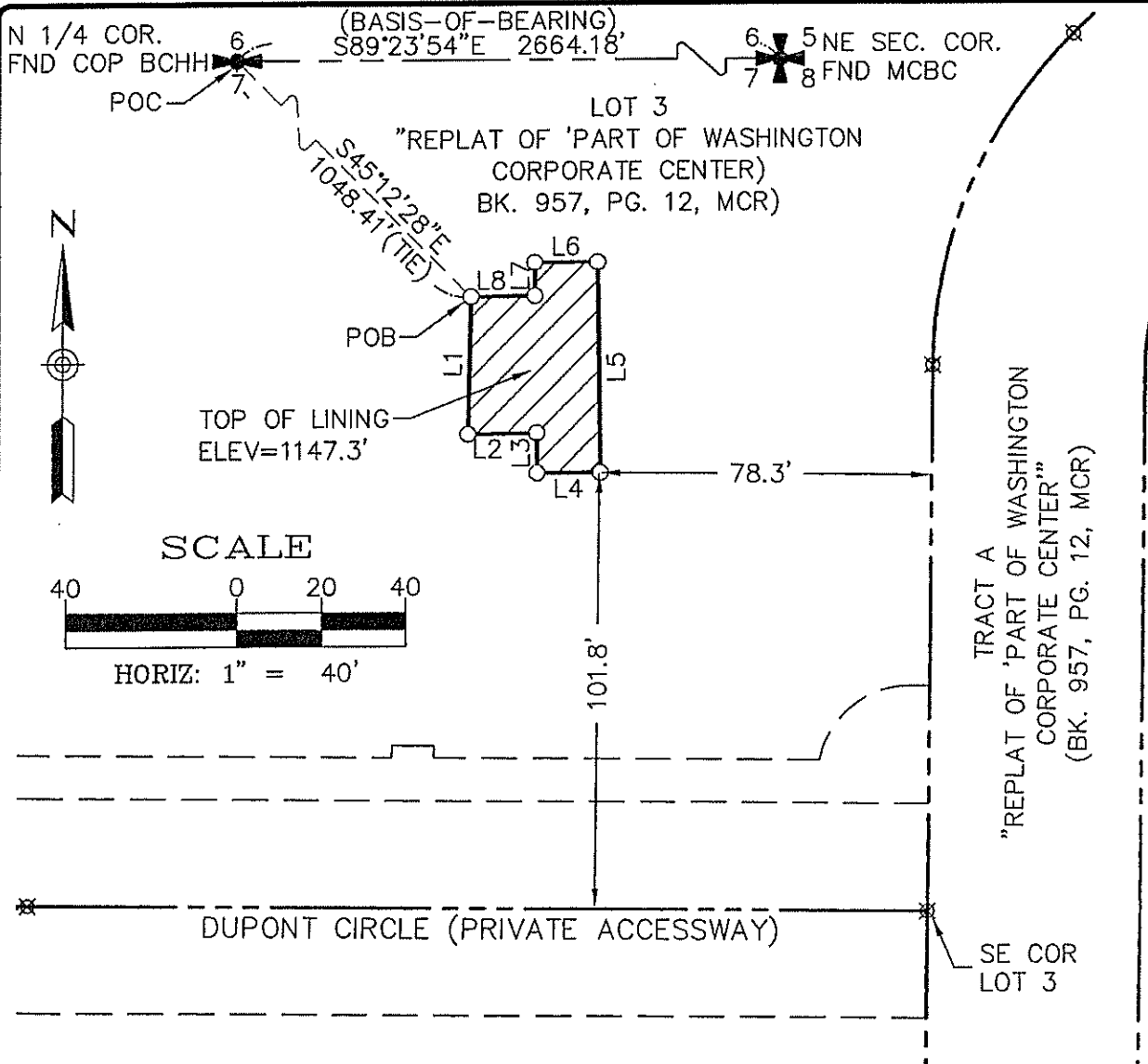
WITNESS my hand and official seal.

Signature \_\_\_\_\_

(Seal)

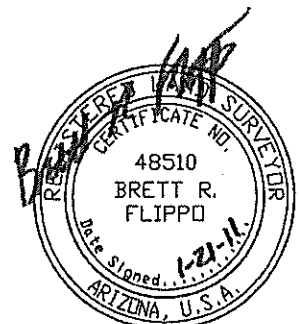


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#### NOTES:

1. BASIS OF BEARING: THE BEARING OF SOUTH 89°23'54" EAST OF THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 4 EAST, G&SRM.
2. PROJECT BENCHMARK IS A S.R.V.W.U.A. ENGINEERING DEPT. BRASS CAP ON THE SOUTHEAST CORNER OF IRRIGATION BOX AT THE SOUTHWEST CORNER OF THE INTERSECTION OF 44TH STREET AND VAN BUREN STREET. ELEVATION=1153.33 FEET (NGVD-29, CITY OF PHOENIX DATUM).
3. THIS EXHIBIT IS TO BE USED SOLELY AS A REFERENCE TO THE LEGAL DESCRIPTION TO WHICH IT IS ATTACHED.



EXPIRES: 9/30/2011

#### EXHIBIT MAP

PORTION OF "REPLAT OF 'PART OF WASHINGTON CORPORATE CENTER'"

NE 1/4, SECTION 7, TOWNSHIP 1 NORTH, RANGE 4 EAST, G&SRM  
MARICOPA COUNTY, ARIZONA



1 OF 2

3527.002

## LEGAL DESCRIPTION

THAT PORTION OF LOT 3, REPLAT OF "PART OF WASHINGTON CORPORATE CENTER", FILED IN BOOK 957 OF MAPS, PAGE 12, RECORDS OF MARICOPA COUNTY, ARIZONA, AND LYING IN THE NORTHEAST QUARTER OF SECTION 7, TOWNSHIP 1 NORTH, RANGE 4 EAST OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A CITY OF PHOENIX BRASS CAP IN HAND HOLE MARKING THE NORTH QUARTER SECTION CORNER OF SAID SECTION 7, FROM WHICH A MARICOPA COUNTY BRASS CAP BEARS SOUTH 89°23'54" EAST, 2664.18 FEET;

THENCE SOUTH 45°12'28" EAST, 1048.41' TO A SET 1/2" REBAR WITH YELLOW PLASTIC CAP STAMPED "LS 48510" AND THE POINT OF BEGINNING;

THENCE SOUTH 01°21'15" WEST, 31.95 FEET TO A SET 1/2" REBAR WITH YELLOW PLASTIC CAP STAMPED "LS 48510";

THENCE NORTH 89°19'50" EAST, 16.12 FEET TO A SET 1/2" REBAR WITH YELLOW PLASTIC CAP STAMPED "LS 48510";

THENCE SOUTH 00°40'10" EAST, 9.27 FEET TO A SET 1/2" REBAR WITH YELLOW PLASTIC CAP STAMPED "LS 48510";

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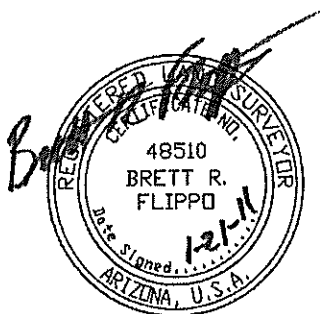
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THENCE SOUTH 89°19'50" WEST, 14.99 FEET TO THE POINT OF BEGINNING.

CONTAINING 1,219 SQUARE FEET OR 0.03 ACRES, MORE OR LESS.



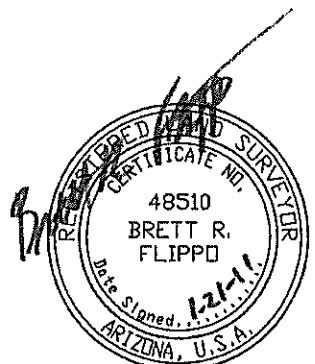
EXPIRES: 9/30/2011

PREPARED BY STRAND ASSOCIATES, INC.  
4602 E ELWOOD ST., SUITE 16  
PHOENIX, AZ 85040

LINE TABLE		
LINE	LENGTH	BEARING
L1	31.95	S01°21'15"W
L2	16.12	N89°19'50"E
L3	9.27	S00°40'10"E
L4	14.76	N90°00'00"E
L5	48.93	N00°40'10"W
L6	14.76	S90°00'00"W
L7	7.73	S00°40'10"E
L8	14.99	S89°19'50"W

**LEGEND:**

=====	= PROPERTY LINE
-----	= SECTION LINE
- - - - -	= EASEMENT
○	= SET 1/2"X18" REBAR W/CAP "LS 48510"
⊗	= MONUMENT NOT FOUND OR SET.
BCHH	= BRASS CAP IN HAND HOLE
COP	= CITY OF PHOENIX
MCR	= MARICOPA COUNTY RECORDS
MCBC	= MARICOPA COUNTY BRASS CAP
POB	= POINT OF BEGINNING
POC	= POINT OF COMMENCEMENT
✝	= FOUND SECTION CORNER



EXPIRES: 9/30/2011

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MARICOPA COUNTY, ARIZONA**



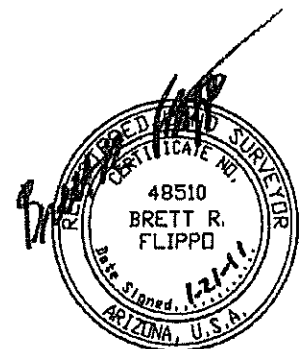
**2 OF 2**

3527.002

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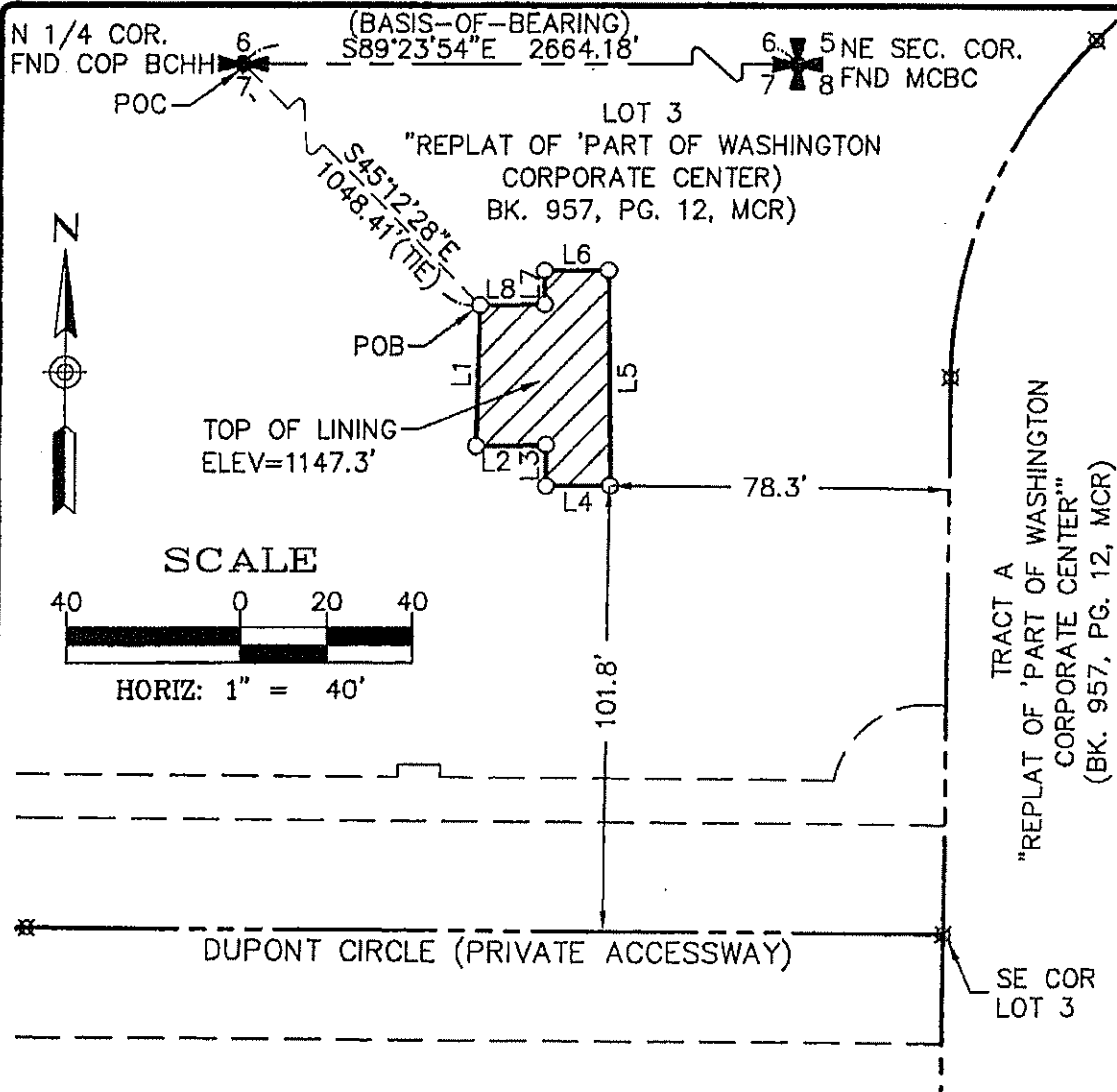
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**2 OF 2**

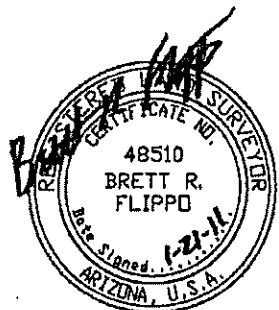
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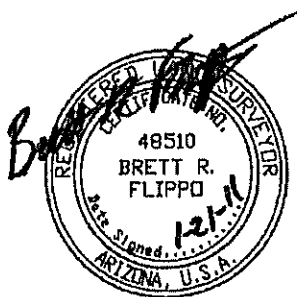
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EXPIRES: 9/30/2011

PREPARED BY STRAND ASSOCIATES, INC.  
4602 E ELWOOD ST., SUITE 16  
PHOENIX, AZ 85040

## **APPENDIX B**



**Western  
Technologies  
Inc.**

The Quality People  
Since 1955

3737 East Broadway Road  
Phoenix, Arizona 85040-2921  
(602) 437-3737 • fax 470-1341

**SOIL / AGGREGATE  
FIELD UNIT WEIGHT TESTS  
(FIELD DENSITY)**

Client **AIG**

**C/O DST REALESTATE ADVISORS  
6730 N SCOTTSDALE RD #235  
SCOTTSDALE, AZ 85253**

Date of Report **01-03-11**

Job No. **2187JK184**

Page **1** of **1**

Event/Invoice No. **A184-635**

Authorized By **AIG/TYMINIS**

Date **12-22-10**

Tested By **WT/MYERS**

Date **12-23-10**

Client

**AIG**

Project

**PCB SITE CHARACTERIZATION**

Location

**44TH ST. & WASHINGTON, PHOENIX, AZ**

Test Locations Designated By **WT/MYERS**

Test Procedures In-Place Unit Weight : **ASTM D6938** Moisture Content : **ASTM D6938** Rock Correction : **ASTM D4718**

Gauge : **Make TROXLER** Model **3430** Serial No. **27901** Standard Count: Unit Weight **2606** H<sub>2</sub>O **619**

TEST NO.	IN-PLACE CHARACTERISTICS			Oversize %	ID	LAB CHARACTERISTICS				COMPACTION	REQUIREMENTS			
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.			Maximum Dry Unit Weight lbf / cu. ft.		Optimum Moisture %			% of Corrected Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED
						TESTED	CORRECTED	TESTED	CORRECTED					
1		17.8	111.1	0	5	104.8	104.8	17.9	17.9	100 +		95	YES	
2		16.8	109.7	0	5	104.8	104.8	17.9	17.9	100 +		95	YES	
3		8.1	131.5	16	3	128.5	133.3	8.6	7.4	99		95	YES	
4		18.2	108.6	0	5	104.8	104.8	17.9	17.9	100 +		95	YES	
5		8.4	132.5	16	3	128.5	133.3	8.6	7.4	99		95	YES	
6		9.2	130.4	16	3	128.5	133.3	8.6	7.4	98		95	YES	
7		16.9	113.3	0	5	104.8	104.8	17.9	17.9	100 +		95	YES	
8		19.3	107.4	0	5	104.8	104.8	17.9	17.9	100 +		95	YES	

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	RETEST OF ELEV SCARIFIED TO EVACUATE & EXCAVATE WATER	1.0	1445.0	SUBGRADE
2	BENTONITE MIX BACKFILL 15' E X 20' N OF SW CORNER	1.0	1446.0	SUBGRADE
3	NATIVE FILL E SIDE AREA CENTER OF 10' X 20' AREA	1.0	1446.0	SUBGRADE
4	BENTONITE MIX BACKFILL 20' E X 20' N OF SW CORNER	0.8	1447.0	SUBGRADE
5	NATIVE FILL E 10' X 20' AREA OF BACKFILL	0.8	1447.0	SUBGRADE
6	NATIVE FILL E 10' X 20' AREA OF BACKFILL	0.8	1448.0	SUBGRADE
7	BENTONITE MIX BACKFILL 26' E X 35' N OF SW CORNER	1.0	1448.0	SUBGRADE
8	BENTONITE MIX BACKFILL 15' E X 10' N OF SW CORNER	1.0	1448.0	SUBGRADE

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
5	2140WP102	LT BROWN CLAY	BETONITE & NATIVE BLEND	17.9	104.8	D698-A
3	2140WP063		EXAVATED SOIL	8.6	128.5	D698-C

Comments: \* DATUM SEA LEVEL

Distribution : CLIENT (1)

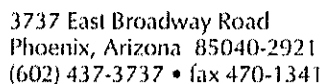
TESTING WAS PERFORMED PER LOCAL INDUSTRY PRACTICES THAT MAY INCLUDE SLIGHT DEVIATIONS FROM THE STANDARDS.

TESTS REPORTED HEREIN ARE INDICATIVE OF CONDITIONS FOUND AT THE EXACT LOCATION AND TIME OF TESTING ONLY. THE ABOVE SERVICES AND REPORT WERE PERFORMED PURSUANT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN WT AND CLIENT. WT WARRANTS THAT THIS WAS PERFORMED UNDER THE STANDARD OF REASONABLE CARE APPLICABLE TO SUCH TESTING GENERALLY. NO OTHER WARRANTY, GUARANTY, OR REPRESENTATION, EXPRESSED OR IMPLIED, IS INCLUDED OR INTENDED.

REVIEWED BY

**R.MARWIG**





## 402B1©97 WTI

**SOIL / AGGREGATE  
FIELD UNIT WEIGHT TESTS  
(FIELD DENSITY)**

Client AIG

**C/O DST REAL ESTATE ADVISORS  
6730 N SCOTTSDALE RD #235  
SCOTTSDALE, AZ 85253**

Date of Report 01-03-11

Job No. 2187JK184

Page 1 of 1

Event/Invoice No. A184-628

Authorized By **AIG/TYMINs**

Date 12-20-10

Tested By WT/MYERS

Date 12-21-10

Client      AIG

Client	THE
Project	PCB SITE CHARACTERIZATION

Location 44TH ST. & WASHINGTON, PHOENIX, AZ

Test Locations Designated By WT/MYERS

Test Procedures In-Place Unit Weight : ASTM D6938      Moisture Content : ASTM D6938      Rock Correction : ASTM D4718

Gauge : Make TROXLER      Model 3430      Serial No. 27901      Standard Count: Unit Weight 2604      H<sub>2</sub>O 619

[illegible][illegible]

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, tbf / cu. ft.	TEST METHOD
3	2140WP063		EXAVATED SOIL	8.6	128.5	D698-C
5	2140WP102	LT BROWN CLAY	BETONITE & NATIVE BLEND	17.9	104.8	D698-A

Comments: \* DATUM SEA LEVEL

Distribution : CLIENT (1)

TESTING WAS PERFORMED PER LOCAL INDUSTRY PRACTICES THAT MAY INCLUDE SLIGHT DEVIATIONS FROM THE STANDARDS.

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REVIEWED BY

R. MARWIG

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Phoenix, Arizona 85040-2921  
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**SOIL / AGGREGATE  
FIELD UNIT WEIGHT TESTS  
(FIELD DENSITY)**

Client **AIG**  
C/O DST REALESTATE ADVISORS  
6730 N SCOTTSDALE RD #235  
SCOTTSDALE, AZ 85253

Date of Report **02-01-11**  
Job No. **2187JK184**  
Event/Invoice No. **A184-582A**  
Authorized By **AIG/GAINTNER**  
Tested By **WT/WARREN**

Page **1** of **1**  
Date **08-11-10**  
Date **08-12-10**

Client **AIG**  
Project **PCB SITE CHARACTERIZATION**  
Location **44TH ST. & WASHINGTON, PHOENIX, AZ**

Test Locations Designated By **WT/WARREN**

Test Procedures In-Place Unit Weight : **ASTM D6938** Moisture Content : **ASTM D6938** Rock Correction : **ASTM D4718**  
Gauge : **Make TROXLER** Model **3411-B** Serial No. **12917** Standard Count: Unit Weight **1878** H<sub>2</sub>O **548**

TEST NO.	IN-PLACE CHARACTERISTICS				ID	LAB CHARACTERISTICS				COMPACTION		REQUIREMENTS		
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %		Maximum Dry Unit Weight lbf / cu. ft.		Optimum Moisture %		% of Corrected Maximum Dry Unit Weight	Moisture %	Compaction %	CONFORMANCE INDICATED	
						TESTED	CORRECTED	TESTED	CORRECTED					
10		8.2	128.7	16	3	128.5	133.3	8.6	7.4	97	4.4 TO 10.4	98	NO	
11A		7.8	133.0	16	3	128.5	133.3	8.6	7.4	100	4.4 TO 10.4	98	YES	
12		7.3	131.9	16	3	128.5	133.3	8.6	7.4	99	4.4 TO 10.4	98	YES	
13		8.2	131.7	16	3	128.5	133.3	8.6	7.4	99	4.4 TO 10.4	98	YES	
14		6.7	136.5	16	3	128.5	133.3	8.6	7.4	100 +	4.4 TO 10.4	98	YES	

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
10	PCB TRENCH - 120'N X 120'W OF SEC OF SITE	1.0	92.0	TRENCH BACKFILL
11A	PCB TRENCH - 120'N X 120'W OF SEC OF SITE RETEST OF #10	1.0	92.0	TRENCH BACKFILL
12	PCB TRENCH - 130'N X 125'W OF SEC OF SITE	1.0	93.0	TRENCH BACKFILL
13	PCB TRENCH - 115'N X 130'W OF SEC OF SITE	1.0	94.0	TRENCH BACKFILL
14	PCB TRENCH - 110'N X 125'W OF SEC OF SITE	1.0	95.0	TRENCH BACKFILL

LABORATORY DATA & COMPACTION CHARACTERISTICS						
LAB ID.	EVENT/ INVOICE NO.	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE, %	MAXIMUM DRY UNIT WEIGHT, lb / cu. ft.	TEST METHOD
3	2140WP063		EXAVATED SOIL	8.6	128.5	D698-C

Comments: \* DATUM TOP OF TRENCH = 100.0 FEET

Distribution : CLIENT (1)

TESTING WAS PERFORMED PER LOCAL INDUSTRY PRACTICES THAT MAY INCLUDE SLIGHT DEVIATIONS FROM THE STANDARDS

TESTS REPORTED HEREIN ARE INDICATIVE OF CONDITIONS FOUND AT THE EXACT LOCATION AND TIME OF TESTING ONLY. THE ABOVE SERVICES AND REPORT WERE PERFORMED PURSUANT TO THE TERMS AND CONDITIONS OF THE CONTRACT BETWEEN WE AND CLIENT. WE WARRANT THAT THIS WAS PERFORMED UNDER THE STANDARD OF REASONABLE CARE APPLICABLE TO SUCH TESTING. GENERALLY, NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION, EXPRESSED OR IMPLIED, IS INCLUDED OR INTENDED.

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**SOIL / AGGREGATE  
FIELD UNIT WEIGHT TESTS  
(FIELD DENSITY)**

Client **AIG**  
C/O DST REALESTATE ADVISORS  
6730 N SCOTTSDALE RD #235  
SCOTTSDALE, AZ 85253

Date of Report 02-01-11  
Job No. 2187JK184  
Event/Invoice No. A184-582  
Authorized By AIG/GAINTNER  
Tested By WT/WARREN  
Page 1 of 1  
Date 08-10-10  
Date 08-11-10

Client **AIG**  
Project **PCB SITE CHARACTERIZATION**  
Location **44TH ST. & WASHINGTON, PHOENIX, AZ**

Test Locations Designated By **WT/WARREN**

Test Procedures In-Place Unit Weight : **ASTM D6938** Moisture Content : **ASTM D6938** Rock Correction : **ASTM D4718**  
Gauge : **Make TROXLER** Model **3411-B** Serial No. **12917** Standard Count: Unit Weight **1892** H<sub>2</sub>O **541**

TEST NO.	IN-PLACE CHARACTERISTICS				ID	LAB CHARACTERISTICS				COMPACTION		REQUIREMENTS		CONFORMANCE INDICATED
	Hole Volume cu. ft.	Moisture % of Dry Unit Weight	Dry Unit Weight lbf / cu. ft.	Oversize %		Maximum Dry Unit Weight lbf / cu. ft.		Optimum Moisture %		% of Corrected Maximum Dry Unit Weight	Moisture %	Compaction %		
						TESTED	CORRECTED	TESTED	CORRECTED					
1		11.1	118.8	16	3	128.5	133.3	8.6	7.4	89	4.4 TO 10.4	98	NO	
2A		6.7	131.6	16	3	128.5	133.3	8.6	7.4	99	4.4 TO 10.4	98	YES	
3		4.4	134.6	16	3	128.5	133.3	8.6	7.4	100 +	4.4 TO 10.4	98	YES	
4		8.2	124.1	16	3	128.5	133.3	8.6	7.4	93	4.4 TO 10.4	98	NO	
5A		9.1	130.5	16	3	128.5	133.3	8.6	7.4	98	4.4 TO 10.4	98	YES	
6A		8.5	132.2	16	3	128.5	133.3	8.6	7.4	99	4.4 TO 10.4	98	YES	
7		7.2	131.2	16	3	128.5	133.3	8.6	7.4	98	4.4 TO 10.4	98	YES	
8		8.0	131.8	16	3	128.5	133.3	8.6	7.4	99	4.4 TO 10.4	98	YES	
9		7.2	133.5	16	3	128.5	133.3	8.6	7.4	100	4.4 TO 10.4	98	YES	

TEST NO.	TEST LOCATION, HORIZONTAL	TEST LOCATION, VERTICAL		MATERIAL TESTED
		Approximate Fill Depth, ft.	Elevation *	
1	PCB TRENCH - 117'N X 120'W OF SEC OF SITE	1.0	86.0	TRENCH BACKFILL
2A	PCB TRENCH - 117'N X 120'W OF SEC OF SITE RETEST OF #1	1.0	86.0	TRENCH BACKFILL
3	PCB TRENCH - 117'N X 120'W OF SEC OF SITE	1.0	87.0	TRENCH BACKFILL
4	PCB TRENCH - 125'N X 120'W OF SEC OF SITE	1.0	88.0	TRENCH BACKFILL
5A	PCB TRENCH - 125'N X 120'W OF SEC OF SITE RETEST OF #4	1.0	88.0	TRENCH BACKFILL
6A	PCB TRENCH - 125'N X 120'W OF SEC OF SITE RETEST OF #5	1.0	88.0	TRENCH BACKFILL
7	PCB TRENCH - 115'N X 120'W OF SEC OF SITE	1.0	89.0	TRENCH BACKFILL
8	PCB TRENCH - 115'N X 120'W OF SEC OF SITE	1.0	90.0	TRENCH BACKFILL
9	PCB TRENCH - 115'N X 120'W OF SEC OF SITE	1.0	91.0	TRENCH BACKFILL

LABORATORY DATA & COMPACTION CHARACTERISTICS

LAB ID	EVENT/INVOICE NO	DESCRIPTION OF MATERIAL	SOURCE OF MATERIAL	OPTIMUM MOISTURE %	MAXIMUM DRY UNIT WEIGHT, lbf / cu. ft.	TEST METHOD
3	2140WP063		EXAVATED SOIL	8.6	128.5	D698-C

Comments: \* DATUM TOP OF TRENCH = 100.0 FEET

Distribution : CLIENT (1)

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## PHYSICAL PROPERTIES OF SOILS & AGGREGATES

Client **AIG**  
C/O DST REALESTATE ADVISORS  
6730 N SCOTTSDALE RD #235  
SCOTTSDALE, AZ 85253

Date of Report **02-16-11**

Job No. **2187JK184**

Event / Invoice No. **2140WP083**

Lab No. **2**

Authorized by **AIG/TYMINS**

Date **12-21-10**

Sampled by **S. DI MICELLI**

Date **12-20-10**

Submitted by **WT/PRECIADO**

Date **12-20-10**

Project **WASHINGTON PARK CORPORATE CENTER LOT 3**  
Contractor **ERI**  
Type / Use of Material **CAP MATERIAL**  
Sample Source / Location **ON-SITE SOIL + BENTONITE(25%)**  
Testing Authorized :  
Special Instructions :

Location **4400 BLOCK OF EAST WASHINGTON ST**  
Arch. / Engr. --  
Supplier / Source **PROJECT SITE**  
Source / Location Desig. By **S. DI MICELLI**  
Date **12-20-10**

### TEST RESULTS

SIEVE ANALYSIS : FINER THAN NO. 200 :			LABORATORY COMPACTION CHARACTERISTICS : ASTM D698 METHOD A			
SIEVE	ACCUMULATIVE % PASSING	SPECIFICATION			SAMPLE PREPARATION: <input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY RAMMER USED: <input checked="" type="checkbox"/> 2 IN. CIRCULAR FACE <input type="checkbox"/> OTHER <input type="checkbox"/> MECHANICAL <input checked="" type="checkbox"/> MANUAL	
			TEST PROCEDURE      RESULT      SPECS      TEST PROCEDURE      RESULT      SPECS			
LIQUID & PLASTIC PROPERTIES : LIQUID LIMIT → ESTIMATED % RETAINED ON NO. 40      PLASTIC LIMIT → SAMPLE AIR DRIED <input type="checkbox"/> YES <input type="checkbox"/> NO      PLASTICITY INDEX →			RESISTANCE TO DEGRADATION OF SMALL-SIZE COARSE AGGREGATES BY ABRASION : GRADING      100 REV, % LOSS → GRADING      500 REV, % LOSS →			
MOISTURE CONTENT : PORTION TESTED      % DRY WEIGHT →			SPECIFIC GRAVITY : MAX. PARTICLE SIZE, IN.      SPECIFIC GRAVITY @ 20°C →			
EXPANSION / COMPRESSION PROPERTIES OF COHESIVE SOIL : <input type="checkbox"/> EXPANSION <input type="checkbox"/> COMPRESSION, % → MAXIMUM SWELL PRESSURE, KSF →  SURCHARGE, KSF INITIAL WATER CONTENT, %      DRY DENSITY, PCF			pH DETERMINATION : pH →  SOLUBLE SALTS : PPM →  MINIMUM RESISTIVITY : OHM-CM →			
SOIL CLASSIFICATION :			GROUP SYMBOL: NAME:			

Comments :

Copies to : CLIENT (1)

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REVIEWED BY \_\_\_\_\_

## PHYSICAL PROPERTIES OF SOILS & AGGREGATES

Client **AIG**  
**C/O DST REAL ESTATE ADVISORS**  
**6730 N SCOTTSDALE RD #235**  
**SCOTTSDALE, AZ 85253**

Date of Report 02-16-11

Job No. 2187JK184

Event / Invoice No. 2140WP063

Lab No. 1

Authorized by AIG/TYMINs

Date 08-11-10

Sampled by WT/FOREMAN

Date 08-06-10

Submitted by WT/PRECIADO

Date 08-06-10

Project WASHINGTON PARK CORPORATE CENTER LOT 3

Location 4400 BLOCK OF EAST WASHINGTON ST

**Contractor ERI**

Arch. / Engr. --

Type / Use of Material BACKFILL

Supplier / Source PROJECT SITE

Sample Source / Location	EXCAVATED SOIL
1	
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Source / Location Desig. By WT/FOREMAN

Date 08-06-10

Testing Authorized :

**Special Instructions :**

## TEST RESULTS

SIEVE ANALYSIS : FINER THAN NO. 200 :			LABORATORY COMPACTION CHARACTERISTICS : ASTM D1557 METHOD C		
SIEVE	ACCUMULATIVE % PASSING	SPECIFICATION			
			SAMPLE PREPARATION: <input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY RAMMER USED: <input checked="" type="checkbox"/> 2 IN. CIRCULAR FACE <input type="checkbox"/> OTHER <input type="checkbox"/> MECHANICAL <input checked="" type="checkbox"/> MANUAL PROJECT PROCTOR ID: 8 MAXIMUM DENSITY, LBF/FT <sup>3</sup> → 128.5 OPTIMUM MOISTURE CONTENT, % → 8.8 OVERSIZE AGGREGATE : ASSUMED BULK SPECIFIC GRAVITY : 2.65 ASSUMED ABSORPTION, % : 1.0 % OVERSIZE IN LAB SAMPLE : 31 ASSUMED SPECIFIC GRAVITY IN ZERO AIR VOID CURVE : 2.65		
TEST PROCEDURE			RESULT	SPECS	TEST PROCEDURE
LIQUID & PLASTIC PROPERTIES : LIQUID LIMIT → ESTIMATED % RETAINED ON NO. 40 SAMPLE AIR DRIED <input type="checkbox"/> YES <input type="checkbox"/> NO PLASTIC LIMIT → PLASTICITY INDEX →					RESISTANCE TO DEGRADATION OF SMALL-SIZE COARSE AGGREGATES BY ABRASION : GRADING 100 REV, % LOSS → GRADING 500 REV, % LOSS →
MOISTURE CONTENT : PORTION TESTED % DRY WEIGHT →					SPECIFIC GRAVITY : MAX. PARTICLE SIZE, IN. SPECIFIC GRAVITY @ 20°C →
EXPANSION / COMPRESSION PROPERTIES OF COHESIVE SOIL : <input type="checkbox"/> EXPANSION <input type="checkbox"/> COMPRESSION, % → MAXIMUM SWELL PRESSURE, KSF → SURCHARGE, KSF INITIAL WATER CONTENT, % DRY DENSITY, PCF					pH DETERMINATION : pH → SOLUBLE SALTS : PPM → MINIMUM RESISTIVITY : OHM-CM →
SOIL CLASSIFICATION :			GROUP SYMBOL: NAME:		

**Comments :**

Copies to : CLIENT (1)

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## LABORATORY REPORT ON SOIL

Client **AIG**

**C/O DST REAL ESTATE ADVISORS  
6730 N SCOTTSDALE RD #235  
SCOTTSDALE, AZ 85253**

Date of Report **NOVEMBER 3, 2010**

Job No. **2187JK184**

Event / Invoice No.

Lab No.

Authorized By

Date

Sampled By

Date

Submitted By

Date

Project **WASHINGTON PARK CORPORATE CENTER, LOT 3**

Contractor

Location

Type / Use of Material **25% BENTONITE POWDER MIX**

Arch. / Engr.

Sample Source / Location

Supplier / Source

Reference: **PARTICLE SIZE ANALYSIS OF SOIL** ☐ ASTM D422 ☐ AASHTO T88

Source / Location Desig. By

Date

**HYDRAULIC CONDUCTIVITY** ☒ ASTM D5084 METHOD ☐ ASTM D2434

Special Instructions: **FALLING HEAD - RISING TAILWATER**

### TEST RESULTS

SIEVE ANALYSIS		HYDROMETER ANALYSIS		LIQUID & PLASTIC PROPERTIES	
SIEVE SIZE	% PASS	PARTICLE SIZE	% PASS		
3 IN.		0.074 MM		<input type="checkbox"/> ASTM D4318 <input type="checkbox"/> AASHTO T89 & T90	
2 IN.		0.020 MM		METHOD <input type="checkbox"/> A <input type="checkbox"/> B	
1 1/2 IN.		0.005 MM		LIQUID LIMIT	RESULT 170
1 IN.		0.002 MM		PLASTIC LIMIT	152
3/4		0.001 MM		PLASTICITY INDEX	18
3/8				SAMPLE AIR DRIED: <input type="checkbox"/> YES <input type="checkbox"/> NO	
NO. 4				ESTIMATE % RETAINED ON NO. 40	
8					
10					
40					
50					
200	35				

HYDRAULIC CONDUCTIVITY	
SPECIMEN CHARACTERISTIC	
HEIGHT, IN.	DENSITY, PCF
INITIAL 3.01	106.5
FINAL 3.01	106.5

### HYDRAULIC CONDUCTIVITY

SPECIMEN CHARACTERISTIC							
INITIAL	HEIGHT, IN.	DIAMETER, IN.	DENSITY, PCF	MOISTURE, %	VOID RATIO	SATURATION, %	TYPE
FINAL	3.01	2.85	106.5	18.0	.58	84	<input checked="" type="checkbox"/> REMOLDED
	3.01	2.85	106.5	21.2	.58	98	<input type="checkbox"/> UNDISTURBED

SPECIFIC GRAVITY → 2.7	<input type="checkbox"/> ASTM D854	
	<input checked="" type="checkbox"/> ASSUMED	
PERMEANT		
TOTAL BACK PRESSURE, PSI →		
	MAXIMUM CONSOLIDATION EFFECTIVE STRESS, PSI →	5
	MINIMUM CONSOLIDATION EFFECTIVE STRESS, PSI →	2
	HYDRAULIC GRADIENT →	1.15 (AVE)
	HYDRAULIC CONDUCTIVITY, CM PER SECOND →	7.4E-8 (AVE)

Comments:

Copies To:

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423095WTI  
092899



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## LABORATORY REPORT ON SOIL

Client **AIG**

C/O DST REAL ESTATE ADVISORS  
6730 N SCOTTSDALE RD #235  
SCOTTSDALE, AZ 85253

Date of Report **NOVEMBER 3, 2010**

Job No. **2187JK184**

Event / Invoice No.

Lab No.

Authorized By

Date

Sampled By

Date

Submitted By

Date

Project **WASHINGTON PARK CORPORATE CENTER, LOT 3**

Location

Contractor

Arch. / Engr.

Type / Use of Material **25% BENTONITE PELLETS MIX**

Supplier / Source

Sample Source / Location

Source / Location Desig. By

Date

Reference: **PARTICLE SIZE ANALYSIS OF SOIL** ☐ ASTM D422 ☐ AASHTO T88

**HYDRAULIC CONDUCTIVITY** ☒ ASTM D5084 METHOD ☐ ASTM D2434

Special Instructions: **FALLING HEAD - RISING TAILWATER**

### TEST RESULTS

SIEVE ANALYSIS		HYDROMETER ANALYSIS		LIQUID & PLASTIC PROPERTIES	
SIEVE SIZE	% PASS	PARTICLE SIZE	% PASS	METHOD <input type="checkbox"/> A <input type="checkbox"/> B	RESULT
3 IN.		0.074 MM			
2 IN.		0.020 MM			
1 1/2 IN.		0.005 MM			
1 IN.		0.002 MM			
3/4		0.001 MM			
3/8					
NO. 4					
8					
10					
40					
50					
200					

### HYDRAULIC CONDUCTIVITY

SPECIMEN CHARACTERISTIC							
INITIAL	HEIGHT, IN.	DIAMETER, IN.	DENSITY, PCF	MOISTURE, %	VOID RATIO	SATURATION, %	TYPE
FINAL	3.01	2.85	106.4	18.0	.58	83	<input checked="" type="checkbox"/> REMOLDED
	3.01	2.85	106.4	22.2	.58	103	<input type="checkbox"/> UNDISTURBED

SPECIFIC GRAVITY → **2.7**

☐ ASTM D854

☒ ASSUMED

MAXIMUM CONSOLIDATION EFFECTIVE STRESS, PSI → **5**

MINIMUM CONSOLIDATION EFFECTIVE STRESS, PSI → **2**

PERMEANT

HYDRAULIC GRADIENT → **2.13 (AVE)**

TOTAL BACK PRESSURE, PSI →

HYDRAULIC CONDUCTIVITY, CM PER SECOND → **8.1E-8 (AVE)**

Comments:

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